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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,412	12/17/2001	Ka Cheong Leung	6173/5006US	5304

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EXAMINER	
NGUYEN, DUC M	

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/024,412	LEUNG ET AL.	
	Examiner	Art Unit	
	Duc M. Nguyen	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the applicant 's response filed on 3/16/05. Claims **1-27** are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims **1, 3, 8, 10** are rejected under 35 U.S.C. 102(a) as being anticipated by **Sharpe** (US **6,085,069**).

Regarding claim **1**, **Sharpe** discloses a method for providing wireless communication between a mobile station (pager or cellular phone, see col. 7, lines 21-25) and a network station using a context for message compression, comprising:

storing persistently profile-specific information in a profile-specific dictionary (see col. 4, line 60 – col. 5, line 7 and col. 6, lines 1-37 regarding telephone numbers); and

providing communication between the mobile station and the network station using the profile-specific dictionary for message compression (see Abstract, and col. 6, lines 56-59).

Regarding claim **3**, **Sharpe** further discloses the profile comprises user information (see col. 6, lines 10-16 regarding telephone numbers).

Regarding claim **8**, the claim is rejected for the same reason as set forth in claim 3 above. In addition, it is clear that **Sharpe** would disclose a computer-processable medium as claimed (see control processor in Fig. 3).

Regarding claim **10**, **Sharpe** further discloses the profile comprises user information (see col. 6, lines 10-16 regarding telephone numbers).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims **2, 4, 5, 7, 9, 11, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sharpe**.

Regarding claim **2**, the claim is rejected for the same reason as set forth in claim 17 above. In addition, since the device information such as its identity is included in the header of a message, it is clear that such identity would obviously be one of most frequently used item in a message. Therefore, it would have been obvious to one skilled in the art to modify **Sharpe** to further include most frequently used device information such as its identity in the dictionary, for further improving the compression ratio of the message.

Regarding claim **4**, **Sharpe** fails to disclose a removable identity module (SIM card). However, using a SIM card as an external storage for storing user information is

well known in the art. Therefore, it would have been obvious to one skill in the art to modify **Sharpe** to provide a removable identity module (SIM card) as claimed, for extending memory capability of the mobile device with an external storage.

Regarding claim **5**, the claim is rejected for the same reason as set forth in claim 3 above. In addition, since the profile-specific dictionary is dedicated to user information such as telephone numbers as disclosed by **Sharpe** (see **col. 6, lines 10-16**), it would have been obvious to one skill in the art to modify **Sharpe** to provide a plurality of profile-specific dictionaries as claimed, so that an optimum compression dictionary for each of a plurality of mobile stations would be obtained.

Regarding claim **7**, the claim is rejected for the same reason as set forth in claim 1 above. In addition, it is clear that in order to compress and/or decompress a message, a code or software program should be utilized and would obviously be downloaded to the control processor 54 shown in Fig. 3 of **Sharpe**, in order to perform the above compression/decompression algorithm.

Regarding claims **9, 11, 13**, the claims are rejected for the same reason as set forth in claims **2, 5, 7** above, respectively.

5. Claims **6, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sharpe** in view of **Bellovin (EP 0933876)**.

Regarding claim **6**, **Sharpe** fails to disclose protocol-specific information in a static dictionary. However, **Bellovin** discloses a data compression method for packet transmission, wherein a plurality of static dictionaries are used, wherein one of the static

dictionary comprise protocol-specific information (see col. 5, lines 1-9). Therefore, it would have been obvious to one skill in the art to further incorporate Bellovin's teaching to Sharp to provide a protocol-specific information in a static dictionary as claimed, for further improving the compression ratio of the communication signal.

Regarding claim **12**, the claim is rejected for the same reason as set forth in claim 6 above.

6. Claims **14, 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bellovin (EP 0933876)**.

Regarding claim **14**, **Bellovin** discloses a data compression method for packet transmission, comprising

receiving a setup message from a mobile station (see col. 4, lines 4-6);

searching for a common dictionary based on the setup message (see col. 4, lines 7-9, 24-29),

attempting to validate the common dictionary when the common dictionary is found (see col. 4, lines 40-46). Here, with the broadest reasonable interpretation, in order to select the appropriate static dictionary based on the data type to be employed in that given transmission, it is clear that the selected dictionary must be found and thus would obviously be validated before it is selected.

providing a common dictionary identifier associated with the common dictionary to the mobile station when the common dictionary is validated (see col. 4, lines 10-12, 24-29; and

communicating with the mobile station using the common dictionary (see col. 4, lines 24-29).

Therefore, the claimed limitations are made obvious by Bellovin for validating a dictionary as claimed, in order to ensure the appropriate static dictionary is found and selected according to the data type to be employed in that given transmission.

Regarding claim **21**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, it is clear that **Bellovin** would disclose the static dictionary comprise protocol-specific information as claimed (see **col. 5, lines 1-9**).

7. Claims **15-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bellovin** in view of **Mitzenmacher et al** (US **5,953,503**).

Regarding claim **15**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, since **Bellovin** discloses a particular dictionary could be download from some other terminals in the network (see **col. 4, lines 48-52**), it is clear that such terminal would obviously be a compression server as disclosed by **Mitzenmacher** (see **Abstract, Fig. 1**). Therefore, it would have been obvious to one skilled in the art to further incorporate **Mitzenmacher's** teaching to **Bellovin** for providing a compression server as claimed, so that both communication terminals would be able to access the server for downloading a common dictionary that is particular suited to the session.

Regarding claim **16**, the claim is rejected for the same reason as set forth in claim 15 above. In addition, it is clear that **Mitzenmacher** and **Bellovin** would disclose

a dictionary identifier as claimed (see **Bellovin**, col. 4, lines 9-11 and **Mitzenmacher**, Abstract, regarding the fingerprint), in order to ensure that a common dictionary is used by both terminals.

8. Claims **17-20, 22-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bellovin** in view of **Sharpe**.

Regarding claim **17**, the claim is rejected for the same reason as set forth in claim 14 above. However, **Bellovin** fails to disclose a profile-specific dictionary. However, **Sharpe** discloses a method for providing wireless communication using a context for message compression, wherein a profile-specific dictionary is used (see col. 6, lines 1-37). Since **Bellovin** suggests using a plurality of dictionaries, each dedicated to the type of text or information regarding the data type involved in the transmission (see paragraph [0017], it would have been obvious to one skilled in the art to further incorporate **Sharpe's** teaching to **Bellovin** for providing a profile-specific dictionary as claimed, for further improving the compression ratio of the message (or increasing system capacity) by utilizing a dictionary including most frequently used data.

Regarding claim **18**, the claim is rejected for the same reason as set forth in claim 17 above. In addition, since the device information such as its identity is included in the header of a message, it is clear that such identity would obviously be one of most frequently used item in a message. Therefore, it would have been obvious to one skill in the art to modify **Sharpe** to further include most frequently used device information such as its identity, for further improving the compression ratio of the message. Therefore, it

would have been obvious to one skill in the art to further modify **Sharp** and **Bellovin** to incorporate device information to the profile-specific dictionary as claimed, for further improving the compression ratio of the message.

Regarding claim **19**, the claim is rejected for the same reason as set forth in claim 17 above. In addition, **Sharpe** further discloses the profile comprises user information (see col. 6, lines 10-16).

Regarding claim **20**, the claim is rejected for the same reason as set forth in claim 17 above. In addition, since the profile-specific dictionary is dedicated to user information such as telephone numbers as disclosed by **Sharpe** (see **col. 6, lines 10-16**), it would have been obvious to one skill in the art to modify **Sharpe** and **Bellovin** to provide a plurality of profile-specific dictionaries as claimed, so that an optimum compression dictionary for each of a plurality of mobile stations would be obtained.

Regarding claims **22-24, 26**, the claims are interpreted and rejected for the same reason as set forth in claims **17-19, 20** above, respectively, wherein it is clear that the mobile station in **Bellovin** would comprise a dictionary module, a compressor and a decompressor as claimed.

Regarding claim **25**, **Sharpe** and **Bellovin** as modified fails to disclose a removable identity module (SIM card). However, using a SIM card as an external storage for storing user information is well known in the art. Therefore, it would have been obvious to one skill in the art to modify **Sharpe** and **Bellovin** to provide a removable identity module (SIM card) as claimed, for extending memory capability of the mobile device with an external storage.

Regarding claim **27**, the claim is rejected for the same reason as set forth in claim 14 above. In addition, it is clear that **Bellovin** would disclose the static dictionary comprise protocol-specific information as claimed (see **col. 5, lines 1-9**).

Response to Arguments

9. Applicant's arguments filed 3/16/05 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant contends that Sharpe does not teach a profile-specific information because Sharp can be at best teach "telephone numbers" which are not directly related to the terminal itself, its capabilities, its identity, etc. In addition, Applicant argues that there is no indication that the telephone numbers stored in Sharpe are stored in a dictionary that is used for compressing messages.

In response, Applicant's attention is directed to col. 6, lines 38-45 wherein Sharpe discloses that "The description so far has specifically mentioned **telephone numbers** but the invention may be applied to **compressing** alpha-numeric data..." , this clearly indicates that the telephone numbers are compressed using memories 46, 80 containing identical **dictionaries** by sending dictionary references (see col. 6, lines 4-9). Therefore, the question remain is whether the most frequently used telephone numbers of a pager user would read on "the profile-specific information" according to the requirement of the 35 U.S.C 112, sixth paragraph from the limitation of independent claim 1. Here, the specification of the present application described in paragraph **[0054]**, lines 12-17, state that "the profile-specific dictionary may be operable to store signaling

messages regarding **user information, such as** information related to service available to the user of the mobile station, address book information, a user name, a user e-mail address, and **the like** ". In Sharpe, the most frequently used telephone numbers are updated dynamically (read on "storing persistently") and reflect changes in the most frequently used items are related to user information (see col. 6, lines 8-13), which is part of the profile-specific information, noting that the user's pager number is inherently included in every communication message transmit to/from the pager and hence it would be the top candidate for the n most frequently used telephone numbers. Therefore, the examiner believes that Sharpe does teach the claimed limitation and meets the requirement under of the 35 U.S.C 112, sixth paragraph.

Regarding claims 3 and 10, the n most frequently used telephone numbers would read on the "user information" for the same reason as set forth above.

Regarding claim 2, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, it is known that the pager identity should be included in communication messages (i.e, see col. 5, lines 49-51) in order to identify the originating party and the destination party in a message, it is clear that the pager identity would

obviously be one of the top candidate for the n most frequently used items. Since the pager identity is also related to user information, it would have been obvious to one skilled in the art to modify **Sharpe** to further include the pager identity in the profile-specific dictionary as well, for further improving the compression ratio of the message.

Regarding claims 14 and 21, Applicant contends that Bellovin does not teach "searching for a common dictionary..." because Bellovin can be at best teach "sending a setup message to select a dictionary " and that a pointer may be sent by the mobile station which identifies from where to retrieve the dictionary, and there is no "searching" as recited in claim 14.

In response, the examiner disagrees with the Applicant that no "searching" is performed when selecting a dictionary. Here, Bellovin discloses in col. 4, lines 43-46, "at the beginning of the session, the terminal could **select** the appropriate static dictionary based on the data type to be employed in that given transmission". From this excerption, it is clear that the term "selecting" or "searching" would have the "equivalent" meaning because in order to know which dictionary corresponds to a given data type, a searching must be performed. Further, there is no guarantee that such dictionary is exist for such given data types, this situation is also applied to a pointer identifier (i.e, there might be an error when transmitting or decoding the pointer, or there is a system failure at the dictionary data bases). Therefore, if such searching dictionary were not found, there would be no validation. Therefore, the claimed limitations are made obvious by Bellovin for validating a dictionary as claimed, in order to ensure the

appropriate static dictionary is found and selected according to the data type to be employed in that given transmission.

For foregoing reasons, the examiner believes that the pending claims are not allowable over the cited prior art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. **Any response to this final action should be mailed to:**

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry)

or (571) 273-8300 after July 15, 2005.

(571)-273-7893 (for informal or draft communications).

Hand-delivered responses should be brought to Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Edward Urban (Supervisor) whose telephone number is (571) 272-7899.

Duc M. Nguyen

June 21, 2005